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(54) Title: HALOGEN FREE IGNITION RESISTANT THERMOPLASTIC RESIN COMPOSITIONS

(57) Abstract: The present invention is a halogen-free ignition resistant polymer composition comprising: A) a thermoplastic polymer or polymer blend, B) a modified multi-functional epoxy resin containing from 0-20 wt. percent residual epoxy groups, based on the total weight of the epoxy resin, and C) a phosphorus containing compound. The use of a modified multifunctional epoxy compound having from 0-20 weight percent residual epoxy groups, enhances the flame retardancy of the thermoplastic polymer, and can increase the compatibility of the epoxy resin with the thermoplastic polymer through the use of the modified functionalities, without causing black specks in the final product. It has been additionally discovered that modified multi-functional epoxy resins can also contribute to improved mechanical properties, melt flow rate and processability.

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